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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,515	11/28/2003	Takeshi Saito	246007US2RD	7583
22850 7590 07/05/2007 OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER TAYLOR, NICHOLAS R	
			ART UNIT 2141	PAPER NUMBER
			NOTIFICATION DATE 07/05/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

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**Office Action Summary**

Application No.

10/722,515

Applicant(s)

SAITO ET AL.

Examiner

Nicholas R. Taylor

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>1.9.2007</u> | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 1-17 have been examined and are rejected.

#### ***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

#### ***Claim Objections***

3. Claims 6, 7, 9, and 10 are objected to because of the following informality: misspelling of the word judgment. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claim 17 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

As to claim 17, the claimed language would reasonably be interpreted by one of ordinary skill in the art as a system of "software per se" and thus failing to fall within a statutory category of invention, because applicant's claimed "computer program product" is not embodied on a tangible computer readable medium.

In the context of the disclosure and claims in question, one of ordinary skill would reasonably interpret the “program product” as a purely software application. As such, it is not a machine, and it is clearly not a process, manufacture, or composition of matter. Thus, the claimed limitations are not limited to statutory subject matter and are therefore nonstatutory.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

7. Claims 1-10, 16, and 17 are rejected under 35 U.S.C. 102(a) as being anticipated by Kuriya et al. (U.S. PGPub 2002/0152381).

8. As per claims 1, 16, and 17, Kuriya teaches a communication relay device connected to a home network, for relaying information between an outside communication device connected to an outside network and a home communication device connected to the home network, comprising: (Kuriya, paragraphs 0215-0219; see fig. 19, where the network element 202 is defined to include the networks defined in paragraph 0217)

a first copyright protection unit configured to carry out a first authentication and key exchange processing for purpose of copyright protection between the

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communication relay device and the home communication device on the home network; (Kuriya, paragraph 0255 and 0256, see fig. 20 item 223)

a second copyright protection unit configured to carry out a second authentication and key exchange processing for purpose of copyright protection between the communication relay device and the outside communication device on the outside network, based on a scheme different from the first authentication and key exchange processing; (Kuriya, paragraphs 0219-0221, 0249-0250; see fig. 20 item 221)

an identification information memory unit which stores an identification information of the outside communication device; and (Kuriya, see fig. 20 item 224 and the information of fig. 22)

a bridge processing unit configured to receive an access request for the home network from the outside communication device, and carry out transmission/reception of information between the home network and the outside network only when the outside communication device which made the access request is stored in the identification information memory unit and then only when both the first authentication and key exchange processing by the first copyright protection unit and the second authentication and key exchange processing by the second copyright protection unit succeed (Kuriya, where a transfer request is transmitted as per paragraphs 0258-0260 only after processing of structure of fig. 20 authentication 221, content management 222, and copyright management 223 are successful, and the outside device making the request has been stored as per paragraphs 0251-0253).

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9. As per claim 2, Kuriya teaches the system further comprising a registration control unit configured to limit a number of outside communications devices that can be stored in the identification information memory unit to a prescribed number (Kuriya, see contents database 224 of fig. 20 that limits the outside communication devices to those which the user is authorized for).

10. As per claim 3, Kuriya teaches the system further comprising a registration control unit configured to prohibit a deletion of a stored identification information in the identification information memory unit (Kuriya, see contents database 224 wherein the stored data is not directly modifiable by participating systems).

11. As per claim 4, Kuriya teaches the system further wherein the identification Information memory unit stores in advance at least one of a device ID for identifying the outside communication device and a physical address of a communication interface for purpose of copyright protection, before transmitting contents to the outside communication device (Kuriya, paragraphs 0249-0254 and 0295-0308, where the server manages the device information prior to transmissions).

12. As per claim 5, Kuriya teaches the system further wherein the identification information memory unit has a mode for storing a result of the second authentication and key exchange processing by the second copyright protection unit, in a state where

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an access to the home network is permitted to the outside communication device (Kuriya, paragraphs 0219-0221, 0249-0250; see fig. 20 item 221).

13. As per claim 6, Kuriya teaches the system further comprising:

a user information memory unit which stores a user authentication information for the outside communication device; and an authentication judgment unit configured to judge whether the user authentication information of the outside communication device which made the access request for the home network is stored in the user information memory unit or not; wherein the bridge processing unit judges whether or not to permit an access between the none network and the outside network, according to a judgment result of the authentication judgment unit (Kuriya, paragraphs 0219-0221).

14. As per claim 7, Kuriya teaches the system further comprising:

a user information memory unit which stores a user authentication information for the outside communication device; and

an authentication judgment unit configured to judge whether the user authentication information of the outside communication device which made the access request for the home network is stored in the user information memory unit or not:

wherein the identification information memory unit stores at least one of a device ID for identifying the outside communication device and a physical address of a communication interface for purpose of copyright protection, according to a judgment

result of the authentication judgment unit (Kuriya, see process from paragraph 0249-0256).

15. As per claim 8, Kuriya teaches the system further wherein the identification information memory unit has a mode for storing a result of the first authentication and key exchange processing by the first copyright protection unit (Kuriya, see updates processed on fig. 22).

16. As per claim 9, Kuriya teaches the system further comprising:

a user information memory unit which stores a user authentication information for the outside communication device; and an authentication judgment unit configured to judge whether the user authentication information of the outside communication device when made the access request for the home network is stored in the user information memory unit or not;

wherein the bridge processing unit judges whether or not to permit an access between the home network and the outside network, according to a judgment result of the authentication judgment unit (Kuriya, see process from paragraph 0249-0256).

17. As per claim 10, Kuriya teaches the system further comprising:

a user information memory unit which stores a user authentication information for the outside communication device; and an authentication judgment unit configured to judge whether the user authentication information of the outside communication device



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which made the access request for the home network is stored in the user information memory unit or not;

wherein the identification information memory unit stores at least one of a device ID for identifying the outside communication device and a physical address of a communication interface for purpose of copyright protection, according to a judgment result of the authentication judgment unit (Kuriya, paragraphs 0219-0221, 0249-0250; see fig. 20 item 221).

***Claim Rejections - 35 USC § 103***

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

19. Claims 11 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuriya et al. (U.S. PGPub 2002/0152381) and Edson (U.S. Patent 6,526,581).

20. As per claim 11, Kuriya fails to teach the system further comprising:

a Web page production unit configured to produce a Web page describing information for controlling or monitoring the home communication device; and

a Web page disclosing unit configured to transmit the Web page produced by the Web page production unit to the outside network;

wherein the outside communication device controls or monitors the home communication device by using the Web page received through the outside network.

Edson teaches a method of utilizing a gateway interface to interconnect home and external media devices (Edson, figs. 1-2 and col. 5, lines 36-56). Edson further teaches the use of web pages to monitor or control the home communication devices (Edson, col. 11, lines 20-40), enabling specific port numbers to carry out packet transmissions between networks (Edson, col. 8, lines 39-51), producing a global IP for packet relay to gateway (Edson, col. 10, lines 46-65), and protocol/coding conversions for data transmitted from the outside to internal destination devices (Edson, col. 6, lines 44-56).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have combined Kuriya and Edson to provide the communication system of Edson in the system of Kuriya, because doing so would provide a simple common interface for a home network composed of a variety of systems and appliances to access multiple external networks (Edson, col. 2, line 64 to col. 3, line 8).

21. As per claim 13, Kuriya fails to teach the system further comprising a routing control unit configured to notify a specific port number to a connection device for carrying out a connection control for the home network and the outside network, and make a setting such that a packet transmitted to the specific port number will be transmitted to the communication relay device.

Edson teaches a method of utilizing a gateway interface to interconnect home and external media devices (Edson, figs. 1-2 and col. 5, lines 36-56). Edson further teaches the use of web pages to monitor or control the home communication devices (Edson, col. 11, lines 20-40), enabling specific port numbers to carry out packet transmissions between networks (Edson, col. 8, lines 39-51), producing a global IP for packet relay to gateway (Edson, col. 10, lines 46-65), and protocol/coding conversions for data transmitted from the outside to internal destination devices (Edson, col. 6, lines 44-56).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have combined Kuriya and Edson to provide the communication system of Edson in the system of Kuriya, because doing so would provide a simple common interface for a home network composed of a variety of systems and appliances to access multiple external networks (Edson, col. 2, line 64 to col. 3, line 8).

22. As per claim 14, Kuriya fails to teach the system further comprising a routing control unit configured to notify a global IP address of the communication relay device to a connection device for carrying out a connection control for the home network and the outside network, and make a setting such that a packet destined to the global IP address will be transmitted to the communication relay device.

Edson teaches a method of utilizing a gateway interface to interconnect home and external media devices (Edson, figs. 1-2 and col. 5, lines 36-56). Edson further teaches the use of web pages to monitor or control the home communication devices

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(Edson, col. 11, lines 20-40), enabling specific port numbers to carry out packet transmissions between networks (Edson, col. 8, lines 39-51), producing a global IP for packet relay to gateway (Edson, col. 10, lines 46-65), and protocol/coding conversions for data transmitted from the outside to internal destination devices (Edson, col. 6, lines 44-56).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have combined Kuriya and Edson to provide the communication system of Edson in the system of Kuriya, because doing so would provide a simple common interface for a home network composed of a variety of systems and appliances to access multiple external networks (Edson, col. 2, line 64 to col. 3, line 8).

23. 15. The communication relay device of claim 1, wherein the bridge processing unit also carries out at least one of a coding conversion, a protocol conversion and a bandwidth conversion for data entered from one of the outside network and the home network, and then transmits converted data to another one of the outside network and the home network.

Edson teaches a method of utilizing a gateway interface to interconnect home and external media devices (Edson, figs. 1-2 and col. 5, lines 36-56). Edson further teaches the use of web pages to monitor or control the home communication devices (Edson, col. 11, lines 20-40), enabling specific port numbers to carry out packet transmissions between networks (Edson, col. 8, lines 39-51), producing a global IP for packet relay to gateway (Edson, col. 10, lines 46-65), and protocol/coding conversions

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for data transmitted from the outside to internal destination devices (Edson, col. 6, lines 44-56).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have combined Kuriya and Edson to provide the communication system of Edson in the system of Kuriya, because doing so would provide a simple common interface for a home network composed of a variety of systems and appliances to access multiple external networks (Edson, col. 2, line 64 to col. 3, line 8).

24. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kuriya et al. (U.S. PGPub 2002/0152381) and Milliken (U.S. PGPub 2003/0115485).

25. As per claim 12, Kuriya fails to teach wherein the first copyright protection unit realizes copyright protection by adopting at least one of a provision for limiting a TTL (Time To Live) field of a packet transmitted/received between the home communication device and the outside communication device to a specific value, a provision for using a link local address in an Internet protocol, and a provision for using a Ethernet frame as a transmission packet.

Milliken teaches a method for enabling network security and protection in a system that may be exposed to malicious packets (Milliken, paragraphs 0029 and 0030) in a communication relay device (paragraph 0028) by limiting and monitoring time-to-live (TTL) fields to a specific value in order to create a protected network path (Milliken, paragraphs 0081 and 0082).

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It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have combined Kuriya and Milliken to provide the protection provisions of Milliken in the system of Kuriya, because doing so would enable protection from unauthorized packets when communicating over the internet (Milliken, paragraphs 0003 and 0005).

### ***Conclusion***

26. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. This includes:

U.S. Patent No. 7,219,227, which describes a method of data distribution to user terminals while enabling copyright protection;

U.S. PGPub 2001/0034759, which describes a method of using a home network gateway device to enable a communication tunnel with remote destinations; and

U.S. PGPub 2002/0083342, which describes a method of providing private device access to public network clients via authentication.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nicholas Taylor whose telephone number is (571) 272-3889. The examiner can normally be reached on Monday-Friday, 8:00am to 5:30pm, with alternating Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on (571) 272-3880. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nicholas Taylor  
Examiner  
Art Unit 2141



JASON CARDONE  
SUPERVISORY PATENT EXAMINER